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ABSTRACT OF THE DISCLOSURE

A trusted high stability time source for use with a digital time stamping service and a trusted external time source includes a private time source, a published time source, at least one power supply, and control logic. The control logic is programmed to perform a time stamping operation and to perform a published time source update. In performing the published time source update, a reply received from the trusted external time source includes the published time update, and the published time is updated with the published time update if an update condition is satisfied. The update condition is based in part on a time difference between the private time and the published time update.